

COPEPODA.

BOECKELLA, sp.

Two specimens from Cooper Creek found in the tube with *Estheria packardi* undoubtedly belong to this genus, but the material is not sufficient to determine the species with certainty. The specimens have been already referred to in the introductory remarks to this paper.

OSTRACODA.

In the collection are dried specimens of two species of *Cypris*, or allied genus, from "rock hole, west of Carmeena, Everard Range," collected by Capt. S. A. White, 10/8/14; the one is oval in shape, about 2 mm. long, and light brown in colour, the other is much smaller and greenish in colour. Other specimens apparently belonging to the first species are "from flat rock hole, 30 miles east of Musgrave Ranges, Capt. S. A. White, 24/7/14." In both cases specimens of *Lynceus eremia* were present in the same tube.

CLADOCERA.

DAPHNIA, sp.

Dried specimens of a *Daphnia* with carapace produced into a long spine similar to that of *Daphnia thomsoni*, Sars, were found with the Ostracods mentioned above from the "rock hole, west of Carmeena, Everard Range." They are about the same size as *D. thomsoni*, which is known to occur in Australia, but in their dried and shrivelled condition a definite identification is impossible.

 (m) ARANEIDÆ.

By W. J. RAINBOW, Entomologist to the
Australian Museum, Sydney.

PLATE XXXII.

Only seventeen species and one variety were collected, and of these five are described as new. There is nothing really remarkable in the specimens collected; indeed, they bear a close analogy to littoral forms. A few desert species

previously recorded by Hogg, Strand, and myself are included in the material. The list is as follows:—

Family DICTYNIDAE.

AMAUROBIUS AUSTRALIENSIS, Str.

Strand: Zool. Jahrb., 1913, p. 603.

Hab.—Cooper Creek. One specimen.

AMAUROBIUS AUSTRALIENSIS, Str., var. *EXSICCATUS*, Str.

Strand: *op. cit.*, p. 604.

Hab.—Trinity; Clayton Creek; Devils Village, near Trinity.

Family DRASSIDAE.

HEMICLOEA LONGIPES, Hogg.

Hogg: Rep. Horn Exped., ii., Zoology, 1896, p. 337.

Hab.—Farina, October, 1916, one male specimen badly damaged, and one very immature female; Strzelecki Creek, 1 female, adult.

Family ZODARIDAE.

STORENA RASTELLATA, Str.

Strand: Zool. Jahrb., 1913, p. 606.

Hab.—Strzelecki Creek, 1 immature male.

Family THERIDIIDAE.

THERIDION ASBOLODES, ⁽¹⁾ n. sp.

Pl. xxxii., fig. 1.

♀. Cephalothorax 1·7 mm. long, 1·5 mm. broad; abdomen 2·9 mm. long, 2·2 mm. broad.

Cephalothorax obovate, yellow, shining, smooth. *Pars cephalica* strongly arched, segmental groove profound; *ocular area* broader than long; *clypeus* broad, deep. *Pars thoracica* well arched, radial grooves distinct; *marginal band* broad. *Eyes* normal. *Legs*.—Legs 1 and 2 missing; leg 3 has the femur, patella, and tibia yellow, and the metatarsus and tarsus fuscous; leg 4 has the femur and patella yellow, and tibia, tarsus, and metatarsus fuscous; each limb is pilose and armed with short, fine, dark spines. *Palpi* short, strong, similar in clothing to legs: femur and patella yellow, tibia and tarsus fuscous. *Falces* concolorous with cephalothorax, arched, acuminate. *Maxillae* long, yellow, arched, inner angles dilated, apices converging inwards and nearly meeting. Labium concolorous with maxillae, short, broad, arched.

⁽¹⁾ ἀσβολωδης = sooty.

Sternum smoky-yellow, very slightly arched, triangular, and terminating obtusely between fourth pair of coxae. *Abdomen* somewhat ovate, large, boldly projecting over base of cephalothorax, sooty-black above, laterally, and beneath; on the inferior surface, from the *rima epigasteris* to spinnerets there is on each side a wavy, irregular, dull-yellow line, which latter is broadest in front and at the middle, and narrowest in front of spinnerets; midway between the *rima epigasteris* and spinnerets there is a broken transverse line; chitinous plate above *rima epigasteris*, yellow. *Epigynum* a short, broad, yellow, transverse, moderately-arched plaque (fig. 1). *Spinnerets* yellow.

Hab.—Cooper Creek.

Theridion idiotypum, ⁽²⁾ n. sp.

Pl. xxxii., figs. 2-4.

♂. Cephalothorax 1.7 mm. long, 1.1 mm. broad; abdomen 2.5 mm. long, 1.1 mm. broad (fig. 2).

Cephalothorax obovate, yellow, smooth. *Pars cephalica* arched, segmental groove distinct, finely dotted with dark brown down the middle; *ocular area* broader than long, occupying entire width of front of cephalic segment; *clypeus* pale yellow, nearly white. *Pars thoracica* distinctly arched, rather darker than thoracic segment, radial grooves faintly distinct, finely dotted sub-laterally with dark brown; *marginal band* pale yellow, broad. *Eyes* black, prominent, normal. *Legs* long, yellow, slender, tapering, and armed with moderately long, fine, dark spines; relative lengths, 1, 4, 2, 3. *Palpi* short, concolorous with legs; *genital bulb* large, moderately hairy, exceedingly complicated (fig. 3). *Falces* pale yellow, arched, acuminate. *Maxillae* pale yellow, almost white, shining, arched, apices acuminate and directed outwards. *Labium* short, broad, arched, slightly darker than maxillae. *Sternum* triangular, slightly arched, impressed, yellow, clouded with smoky-brown laterally, acuminate, terminating between fourth pair of coxae, lateral angles dark brown. *Abdomen* oblong-ovate, slightly overhanging base of cephalothorax, arched, superior surface chalky-white, ornamented with irregular yellow median markings and reticulations; sides have the upper part chalky-white also reticulated with yellow, and the lower part yellow with dark-brown wavy pencillings (fig. 4); inferior surface yellow, spotted with dark brown, and bordered laterally and posteriorly with an undulating and interrupted band of chalky-white.

Hab.—Cooper Creek.

⁽²⁾ *Idiotypus* = with peculiar markings.

LATRODECTUS HASSELTII, Thor.

Thorell: Oefv. af Kongl. Vetensk. Akad. Förh., 1870, p. 369; *L. scelio*, Thor.: *loc. cit.*, p. 370; *L. katipo*, Powell: Trans. N. Z'd. Inst., iii., 1870, p. 56, pl. v.; *L. hasseltii*, L. Koch: Die Arach. des Austr., i., 1872, p. 276, pl. xxiii., figs. 2, 3, 3a; *L. scelio*, L. Koch; *loc. cit.*, p. 279, pl. xxiii., fig. 4.

Hab.—Cooper Creek. Ranges throughout Australia, New Zealand, South Pacific Islands, Papua, India, Malaysia, and Eastern Arabia.

Family CLUBIONIDAE.

Subfamily SELENOPINAE.

ISOPEDA(?) DOLOSA, L. Koch.

Voconia dolosa, L. Koch: Die Arach. des Austr., i., 1875, p. 648, pl. lii., fig. 2; *I. dolosa*, Hogg: Proc. Zool. Soc., Lond., 1902, p. 435.

Hab.—Innamincka.

NOTE.—In respect of this species Hogg (*suprà*) makes the following interesting remarks:—"L. Koch described this species from two dried specimens in the Museum at Stuttgart, labelled 'Australia' only. The differences by which he says it may be distinguished from *I. insignis*, Thor., are that 'the clearly smaller median eyes of the front row are more than their diameter from the rear median,' and the joining by a dark longitudinal marking of the two median pair of muscle-spots on the back. The latter feature seems a by no means uncommon variation in any species, whenever the back spots are specially well developed, and the former is almost universally the case with females of *I. insignis*, Thor. I have, therefore, great doubts as to its being really a separate species; if it is, the joining of the back spots is its only distinctive character. The Horn Expedition had several specimens from Central Australia, both male and female, with back markings as described, very flat cephalothorax, but front row of eyes equal, and I have similar from Victoria, otherwise the same as *I. insignis*."

ISOPEDA HORNI, Hogg.

Hogg: Rep. Horn Sci. Exped. Cent. Austr., pt. ii., Zoology, p. 340, pl. xxiv., fig. 12.

Hab.—Strzelecki Creek; immature.

ISOPEDA GLORIOSA, n. sp.

Pl. xxxii., figs. 5, 6.

♀. Cephalothorax 8.2 mm. long, 8.2 mm. broad; abdomen 10.4 mm. long, 8.2 mm. broad (fig. 5).

Cephalothorax obovate, truncated in front, yellow, moderately clothed with rather long, strong, adpressed hairs. *Pars cephalica* flat, sides rather steep, segmental groove

profound; *ocular* area broader than long, occupying almost entire width, black; *clypeus* black, not deep. *Pars thoracica* broad, rounded, radial grooves moderately defined; *median fovea* straight, profound; *marginal* band broad, fringed with long black bristles. *Eyes* in two rows of four each; those constituting the front row, which is straight, are of equal size; the second row, which is decidedly longer than the anterior, is slightly procurved, and of those constituting this row the median pair are distinctly the smallest, and closer to each other than to their lateral neighbours. *Legs* long, strong, yellow, laterigrade, armed with powerful spines; each femur, patella, and tibia clothed on the underside with long, fine, yellow hairs, and on the upper-surface with fine yellow pubescence and each metatarsus and tarsus with long black hairs and dense black scopula; relative lengths, 2, 1, 4, 3. *Palpi* short, similar in colour and armature to legs. *Falces* short, powerful, black, shining, arched, hairy, apices divergent; *fangs* short, strong, nearly black, well curved. *Maxillae* normal, orange-red, apices yellow, clothed and fringed with black hair. *Labium* normal also, orange-red, clothed and fringed with black hairs and bristles. *Sternum* yellow, shield-shaped, moderately arched, clothed with silky-yellow hair, and terminating obtusely between fourth pair of coxae. *Abdomen* ovate, rather flat, slightly projecting over base of cephalothorax, densely clothed with golden-yellow hair, and ornamented on upper-surface with dark-brown markings (fig. 5); inferior surface yellow, hairy. *Epigynum* as in figure (fig. 6).

Hab.—Devils Village, near Trinity.

NOTE.—One adult specimen of this beautiful spider was collected, and with it a large number of young individuals which had evidently only recently been hatched. There was no cocoon; the latter would doubtless conform to the type of egg-sac usually constructed by Sparassid spiders, *viz.*, round, cushion-shaped, flat, white, and closely woven.

Subfamily CLUBIONINAE.

CLUBIONA ROBUSTA, L. Koch.

Koch: Die Arach. des Austr., i., 1873, p. 417, pl. xxxiii., figs. 2, 2a, 3, 3a.

Hab.—Trinity.

Family PISAURIDAE.

DOLOMEDES(?) AUSTRALIANUS, L. Koch.

L. Koch: Verh. der K.K. Zool.-Bot. Ges. Wien, 1865, p. 863; Die Arach. des Austr., ii., 1876, p. 873, pl. lxxv., figs. 2, 2a; Hogg: Horn Sci. Exped., ii., Zoology, 1896, p. 345.

Hab.—Clayton Creek; Murteree; Strzelecki Creek; Devils Village, near Trinity. Previously recorded from Wollongong, Sydney, Nepean River, and Reedy Creek, George Hill Range, Central Australia.

NOTE.—Three specimens, each immature, of what I take to be the above species were obtained. Like the example recorded by Hogg (*suprà*) they differ very considerably from Koch's description and figure. The latter author, however, points out that his specimens varied considerably in size and marking. Under the circumstances, I prefer to regard the forms before me as one and the same species, and inseparable from *D. australianus*.

Family LYCOSIDAE.

LYCOSA WAITEI, n. sp.

Pl. xxxii., figs. 7-9.

♀. Cephalothorax 6·5 mm. long, 4·6 mm. broad; abdomen 10·2 mm. long, 5·2 mm. broad (fig. 7).

Cephalothorax obovate, hairy. *Pars cephalica* slightly raised, well arched, nearly black in front, yellow down the middle, dark reddish-brown laterally; *ocular area* longer than broad, furnished with a few moderately long stiff black bristles; *clypeus* deep. *Pars thoracica* well arched, dark reddish-brown, yellow down the middle and sub-laterally; *median fovea* long, straight, radial grooves well defined, nearly black; *marginal band* broad. *Eyes* distributed over three rows of 4, 2, 2; those of the front row small, even, and slightly recurved; the two constituting the intermediate row much larger than their anterior neighbours, and distinctly larger than the posterior pair; median pair separated from each other by a space equal to about once their individual diameter, and the posterior pair from their median neighbours by a space equal to about once their individual diameter, and the posterior pair from their median neighbours by a space equal to about twice their individual diameter, and again from each other by a space equal to fully four times their individual diameter (fig. 8). *Legs* long, strong, hairy, tapering, yellow, annulated reddish-brown, armed with long, moderately strong spines; relative lengths, 4, 1, 2, 3. *Palpi* long, strong, similar in colour and armature to legs. *Falces* long, strong, tapering, black, hairy, well arched. *Maxillae* normal, reddish, rather densely clothed with coarse, black hairs, apices inclined inwards, yellow. *Labium* normal also, similar in colour and clothing to maxillae. *Sternum* somewhat shield-shaped, arched, yellow, shining, margined with dull pale

yellow, clothed with coarse black hairs. *Abdomen* ovate, overhanging base of cephalothorax, hairy, well arched; superior surface yellow, spotted with dark brown and ornamented with a design of same; sides yellow, spotted with dark brown; inferior surface dull yellow. *Epigynum* somewhat mitre-shaped, slightly raised, orange-red, with two long lateral black ridges, the latter bridged at anterior extremity (fig. 9).

Hab.—Cooper Creek.

LYCOSA GODEFFROYI, L. Koch.

Koch: Verh. der K.K. Zool.-Bot. Ges. Wien, 1865, p. 867; Die Arach. des Austr., ii., 1877, p. 957, pl. lxxxiii., figs. 3, 3a, 4, 4a; *L. bellatrix*, L. Koch: Ver der K.K. Zool.-Bot. Ges. Wien, 1865, p. 866.

Hab.—Strzelecki Creek and Cooper Creek.

NOTE.—Common and widely distributed.

LYCOSA NIGROPUNCTATA, Rainb.

Rainbow: Proc. Roy. Soc. S. Austr., xxxix., 1915, p. 787, pl. lxviii., figs. 16, 17.

Hab.—Innaminka. Previously reported from Musgrave Ranges.

LYCOSA CELAENICA,⁽³⁾ n. sp.

Pl. xxxii., figs. 10, 11.

♀. Cephalothorax 5·8 mm. broad, 4·3 mm. long; abdomen 6 mm. long, 4·3 mm. broad (fig. 10).

Cephalothorax obovate, hairy. *Pars cephalica* dark reddish-brown with a broad yellow patch extending from near the middle to the base, well arched, sides declivous, slightly raised, truncated in front, segmented groove distinct; *ocular area* broader than long, and furnished with a tuft of long black bristles immediately below median pair of eyes; *clypeus* broad, deep, fringed with long coarse black bristles. *Pars thoracica* dark reddish-brown, yellow at the centre and laterally, well arched, radial grooves and *median fovea* distinct; *marginal band* broad, dark brown. *Eyes* distributed over three rows of 4, 2, 2. Front row slightly recurved, the eyes small and placed closely together; those of the second row largest of the series, and separated from each other by a space equal to rather less than once their individual diameter; rear pair seated about twice their individual diameter from their median neighbours, and again from each other by a space equal to four times their own individual diameter. *Legs* long, strong, tapering, hairy, spined, yellow, faintly annulated with brown; relative length, 4, 1, 2, 3. *Palpi*

⁽³⁾ κελαινικος = dark.

long, similar in colour, clothing, and armature to legs. *Falces* dark brown, well arched, densely clothed with long coarse dark grey hairs or bristles. *Maxillae* and *labium* normal, hairy; reddish, apices yellow. *Sternum* broadly shield-shaped, dark brown, nearly black, well arched, densely hairy. *Abdomen* ovate, slightly overhanging base of cephalothorax, arched, hairy; superior surface dark brown spotted with yellow, and ornamented in front with distinct yellow, somewhat crescent-like design; sides dark brown; inferior surface yellow, with smoky-brown longitudinal and transverse markings. *Epigynum* large, hairy, well developed, raised, shining, yellow; there is a double ridge running down the middle, and these are bridged in front and curved laterally and outwards posteriorly (fig. 11).

Hab.—Farina.

NOTE.—The example herein described is a fully matured but apparently rather small example. Doubtless when a series of this species shall have been collected and brought together, considerable variation in point of size will be noticeable.

Family OXYOPIDAE.

Only two species of this family were collected, and these call for no comment. They are as hereunder:—

PEUCETIA ALBESCENS, L. Koch.

L. Koch: *Die Arach. des Austr.*, ii., 1878, p. 998, pl. lxxxvii., figs. 3, 3a.

Hab.—Strzelecki Creek.

OXYOPES DINGO, Str.

Strand: *Zool. Jahrb.*, 1913, p. 623.

Hab.—Kanowana, Cooper Creek, and Farina.

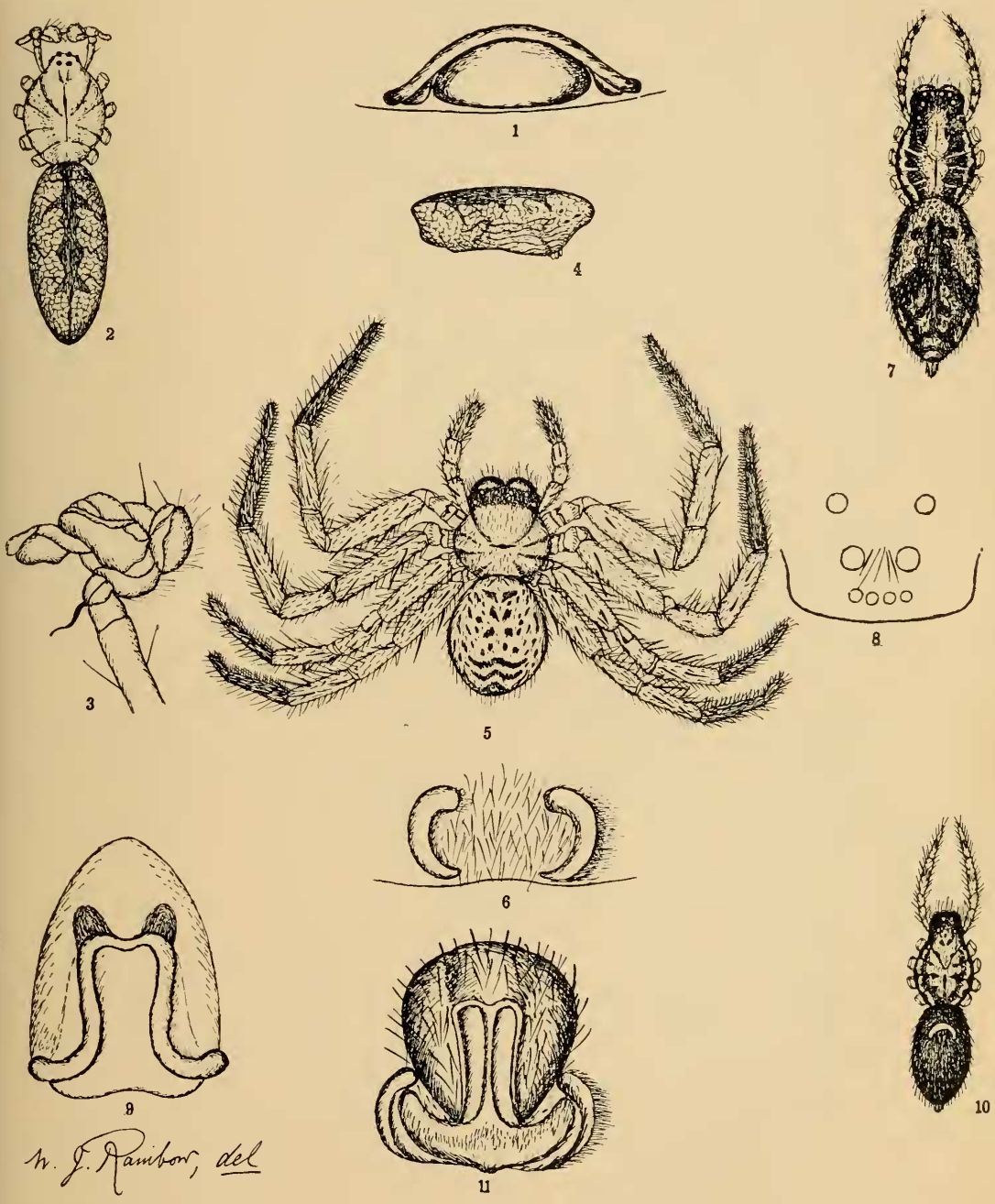
(ii) INSECTA,

By ARTHUR M. LEA, F.E.S., Museum Entomologist.

[*Contribution from the South Australian Museum.*]

PLATES XXXIII. TO XXXVII.

The collection of insects obtained by the expedition is not a large one (which could hardly be expected considering the time of the year it was made), but nevertheless contains some remarkable species; perhaps the most interesting of which is a large subapterous grasshopper (pl. xxxiii., figs. 1-3), of the



W. J. Rainbow, del